

Date: Sun, 11 Sep 94 03:59:02 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #1013
To: Info-Hams

Info-Hams Digest Sun, 11 Sep 94 Volume 94 : Issue 1013

Today's Topics:

7.002 CW Vee Beacon info wanted?
ARLP037 Propagation de KT7H
commercial radio exams
HPM Lesson?
SAREX Keps 9/10 at 15:30 UTC
September VHF Contest
Shuttle Rise-Set Times

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 10 Sep 1994 03:32:21 GMT
From: news.delphi.com!jfsinger@uunet.uu.net
Subject: 7.002 CW Vee Beacon info wanted?
To: info-hams@ucsd.edu

A beacon that sends continuous CW v's has been heard for years on 7.002,
mostly during the winter. At rare times it ID's on CW as RCQ45. The signals
appear to be coming from the UL7/UA9 area.

The beacon is becoming copiable around 1130z long path and around 0100z
short path in Missouri. This evening it was quite strong.

For the past year I have been logging appearances of the beacon and
tape recording some of its more interesting variations.

Does anyone have any info or comments about this highly useful (for
DXers) beacon? Anyone have ideas about its purpose? Where do you think it's
located?

I am especially interested in comments from listeners in Europe/Asia.

Jeff Singer K00D jfsinger@delphi.com

Date: Fri, 09 Sep 1994 19:16:24 EDT
From: psinntp!arrl.org!usenet@uunet.uu.net
Subject: ARLP037 Propagation de KT7H
To: info-hams@ucsd.edu

SB PROP @ ARL \$ARLP037
ARLP037 Propagation de KT7H

ZCZC AP51
QST de W1AW
Propagation Forecast Bulletin 37 ARLP037

Date: 9 Sep 1994 18:35:22 -0600
From: mnemosyne.cs.du.edu!nyx.cs.du.edu!not-for-mail@uunet.uu.net
Subject: commercial radio exams
To: info-hams@ucsd.edu

Commercial radio operators testing scheduled for Sat, Sept 17.

The Hartford, Connecticut, Test Center of National Radio Examiners (W5YI Group) will conduct commercial radio exams on Saturday, September 17, starting at 12 noon in Hartford. Exams will be given for the General Radiotelephone Operators License (GROL) along with the other licenses and endorsements that are now available through this privatized testing program.

Seating at this particular venue is limited, so any interested party should contact me via email or telephone at 203-722-2358 for further details on this session or subsequent exam sessions. Thanks.

Robert Halprin, K1XA, NRE Test Center Manager (Htfd).

G

Date: Sat, 10 Sep 1994 19:36:30 GMT
From: world!dts@uunet.uu.net
Subject: HPM Lesson?
To: info-hams@ucsd.edu

In article <veltmanCvuH1F.L68@netcom.com>,
paul Veltman <veltman@netcom.com> wrote:

>Hans Brakob (71111.260@CompuServe.COM) wrote:

>: It's Tuesday evening and the "/125" HPM event has been going strong for 5 days now. You'd think that most folks would have their "25" for the award, and that a few are hanging on for the stickers up to 125.

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>: I got on this evening to see if perhaps I could help those few stragglers who need one or two more. Well, after 4 hours the band folded and I had upwards of 500 new ones in the log. This thing is as strong as it was early Saturday.

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>: After 16 hours of operation I have 2142 QSO's on a single band/mode. "Annualizing" that to 24 hours you get over 3200 QSO's. In a 24-hour SweepStakes I'd be in the top-ten box with about half that number of Q's.

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>: Question:

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>: This is a "contest like" atmosphere, very similar to SweepStakes in that it is "domestic", and a "little pistol" can play the game. A LOT of folks are obviously enjoying it. Where are these same folks in the SS? What is the "trigger" that drew them

>ito this, or conversely, why aren't they in SS in similar numbers?

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>: I have some partially baked thoughts on the subject, but I'd like to hear what others might think. (Especially those of you who did the "/125" thing, but never have played seriously in a domestic contest like SweepStakes.)

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>: Comments?

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>: 73, de Hans, K0HB

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>: --

>: Hans Brakob, K0HB | EX-KG6AQI, WA0PQF, WB9DLL

>: Vice Director | WB4GXH, WB0WFF

>: Dakota Division ARRL | 73 from Minnesota

>

Subject: SAREX Keps 9/10 at 15:30 UTC
To: info-hams@ucsd.edu

SB SAREX @ AMSAT \$STS-64.003
SAREX Keps 9/10 at 15:30 UTC

Silver Spring, MD September 10, 1994 at 15:30 UTC

The following represents the latest Keplerian Elements as
generated by Gil Carman, WA5NOM, at the Johnson Space Center.

STS-64

```
1 23251U 94059A 94253.61508163 .00083204 00000-0 14200-3 0 137
2 23251 57.0087 221.4445 0009356 272.6550 87.3481 16.05232506 128
```

Satellite: STS-64

Catalog number: 23251

Epoch time: 94253.61508163 = (10 SEP 94 14:45:43.05 UTC)

Element set: 013

Inclination: 57.0087 deg

RA of node: 221.4445 deg

Eccentricity: .0009356

Arg of perigee: 272.6550 deg

Mean anomaly: 87.3481 deg

Mean motion: 16.05232506 rev/day

Decay rate: 8.3204e-04 rev/day^2

Epoch rev: 12

Checksum: 268

Space Shuttle Flight STS-64
Keplerian element set JSC-013
from NASA flight Day 2 vector

Gil Carman

NASA Johnson Space Center

Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group

/EX

Date: 10 Sep 94 14:03:18 GMT
From: news-mail-gateway@ucsd.edu
Subject: September VHF Contest
To: info-hams@ucsd.edu

Hello All,

Re: September VHF Contest.

We will be operating a "green horn" contest station
under the call AA2SP in FN03 please look for us on
6,2,220 & 432.

73's

Bill Rogers, KA2CKI

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Bill Rogers | Tel: (716) 273 7110
Development Engineer | Fax: (716) 273 7262

|
ABB Process Automation |
Post Office Box 22685 |
Rochester, New York 14692-2685 |

Internet: rogers@rogers.rochny.uspra.abb.com

Date: 11 Sep 94 10:26:12 GMT
From: news-mail-gateway@ucsd.edu
Subject: Shuttle Rise-Set Times
To: info-hams@ucsd.edu

SB SAREX @ AMSAT \$STS-64.004
STS-64 Eastern R/S Times 09/11

Below are the rise and set times for STS-64 for selected US cities over the next three days. This data was generated to help hams without orbit programs to participate in the SAREX activities. Please note that all times are in UTC.

Rise= time (HH:MM:SS) the Shuttle Orbiter appears at the horizon
Az= Azimuth (true) where the Orbiter will rise.
Maximum= time, azimuth (Az), and elevation (El) of the highest part of the pass
Set= time and azimuth when the Shuttle descends below the horizon
Orb= the number of this orbit
Rise MET= The Mission Elapsed Time at the rise. Format is DD:HH:MM:SS

Atlanta GA

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	06:11:29	342	06:15:05	43	12	06:18:40	104	22	01:07:48:34	
11Sep94	07:44:17	302	07:47:53	237	16	07:51:28	172	23	01:09:21:22	
11Sep94	22:14:57	219	22:19:08	7	82	22:23:01	39	33	01:23:52:02	

12Sep94	06:06:25	334	06:10:18	43	21	06:14:11	117	38	02:07:43:30
12Sep94	07:39:49	291	07:43:06	236	9	07:46:05	188	39	02:09:16:54
12Sep94	22:10:10	231	22:14:03	302	37	22:18:15	32	49	02:23:47:15
13Sep94	06:01:26	328	06:05:20	37	38	06:09:31	130	54	03:07:38:31
13Sep94	20:33:18	174	20:36:35	121	9	20:39:52	67	64	03:22:10:23
13Sep94	22:05:30	244	22:09:05	310	20	22:12:58	24	65	03:23:42:35

Miami FL

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	06:14:05	359	06:17:04	45	6	06:20:03	93	22	01:07:51:10	
11Sep94	07:46:17	308	07:50:10	233	20	07:53:45	169	23	01:09:23:22	
11Sep94	20:42:03	175	20:45:20	121	10	20:48:37	65	32	01:22:19:08	
11Sep94	22:14:33	249	22:18:08	312	13	22:21:43	12	33	01:23:51:38	
12Sep94	06:08:54	349	06:12:29	50	12	06:16:04	110	38	02:07:45:59	
12Sep94	07:41:42	298	07:45:17	237	10	07:48:34	183	39	02:09:18:47	
12Sep94	20:36:52	189	20:40:27	121	19	20:44:20	52	48	02:22:13:57	
12Sep94	22:10:16	264	22:13:15	312	7	22:16:15	1	49	02:23:47:21	
13Sep94	06:03:43	340	06:07:36	53	22	06:11:30	124	54	03:07:40:48	
13Sep94	20:31:23	204	20:35:16	130	41	20:39:28	42	64	03:22:08:28	

New York NY

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	00:00:00	336	00:00:00	336	8	00:02:59	22	18	01:01:37:05	
11Sep94	04:38:42	334	04:42:17	34	11	04:45:35	90	21	01:06:15:47	
11Sep94	06:11:12	309	06:15:23	220	38	06:19:16	150	22	01:07:48:17	
11Sep94	20:46:50	162	20:49:32	119	5	20:52:13	78	32	01:22:23:55	
11Sep94	22:17:51	231	22:21:44	303	54	22:25:55	41	33	01:23:54:56	
11Sep94	23:52:26	290	23:55:08	333	6	23:58:07	19	34	02:01:29:31	
12Sep94	04:33:50	330	04:37:43	41	16	04:41:18	102	37	02:06:10:55	
12Sep94	06:06:38	302	06:10:31	228	21	06:14:06	163	38	02:07:43:43	
12Sep94	20:41:04	179	20:44:22	125	10	20:47:39	69	48	02:22:18:09	
12Sep94	22:12:58	242	22:16:52	312	29	22:21:03	36	49	02:23:50:03	
13Sep94	04:28:40	325	04:32:51	45	24	04:36:44	114	53	03:06:05:45	
13Sep94	06:01:45	295	06:05:21	236	12	06:08:56	175	54	03:07:38:50	
13Sep94	20:35:36	192	20:39:11	129	16	20:43:05	60	64	03:22:12:41	
13Sep94	22:08:06	253	22:11:59	322	19	22:15:46	32	65	03:23:45:11	

Washington DC

Satellite STS-64

Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	00:00:00	348	00:00:00	348	6	00:02:06	18	18	01:01:37:05	
11Sep94	04:39:05	345	04:42:05	33	6	04:44:46	75	21	01:06:16:10	
11Sep94	06:11:00	317	06:15:11	347	85	06:19:22	138	22	01:07:48:05	
11Sep94	22:17:09	228	22:21:02	307	60	22:25:13	40	33	01:23:54:14	
11Sep94	23:51:44	290	23:54:26	331	5	23:57:07	13	34	02:01:28:49	
12Sep94	04:34:07	340	04:37:24	35	9	04:40:42	89	37	02:06:11:12	
12Sep94	06:06:19	311	06:10:30	222	42	06:14:24	150	38	02:07:43:24	
12Sep94	20:40:28	173	20:43:45	120	8	20:46:45	72	48	02:22:17:33	
12Sep94	22:12:22	240	22:16:15	320	31	22:20:08	34	49	02:23:49:27	
13Sep94	04:28:51	334	04:32:26	34	14	04:36:01	99	53	03:06:05:56	
13Sep94	06:01:39	304	06:05:32	228	22	06:09:07	163	54	03:07:38:44	
13Sep94	20:34:54	187	20:38:29	126	14	20:42:04	62	64	03:22:11:59	
13Sep94	22:07:24	250	22:11:17	322	19	22:15:05	30	65	03:23:44:29	

Compiled by Will Marchant, KC6ROL

Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group

Send comments to kc6rol@amsat.org

/EX

SB SAREX @ AMSAT \$STS-64.005

STS-64 Central R/S Times 09/11

Below are the rise and set times for STS-64 for selected US cities over the next three days. This data was generated to help hams without orbit programs to participate in the SAREX activities. Please note that all times are in UTC.

Rise= time (HH:MM:SS) the Shuttle Orbiter appears at the horizon

Az= Azimuth (true) where the Orbiter will rise.

Maximum= time, azimuth (Az), and elevation (El) of the highest part of the pass

Set= time and azimuth when the Shuttle descends below the horizon

Orb= the number of this orbit

Rise MET= The Mission Elapsed Time at the rise. Format is DD:HH:MM:SS

Chicago IL

Satellite STS-64

Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	00:00:00	30	00:00:00	30	10	00:01:48	39	18	01:01:37:05	
11Sep94	01:28:19	294	01:31:18	340	5	01:34:00	21	19	01:03:05:24	
11Sep94	06:09:06	322	06:13:18	47	32	06:17:11	118	22	01:07:46:11	
11Sep94	07:42:30	290	07:45:48	235	10	07:49:05	180	23	01:09:19:35	

11Sep94	22:16:39	191	22:20:14	129	16	22:24:07	61	33	01:23:53:44
11Sep94	23:49:09	251	23:53:02	323	22	23:56:55	35	34	02:01:26:14
12Sep94	04:32:02	337	04:35:01	24	7	04:38:01	72	37	02:06:09:07
12Sep94	06:04:14	317	06:08:25	43	58	06:12:19	128	38	02:07:41:19
12Sep94	07:37:56	282	07:40:55	237	5	07:43:37	195	39	02:09:15:01
12Sep94	22:11:29	203	22:15:22	128	26	22:19:15	56	49	02:23:48:34
12Sep94	23:44:35	262	23:48:10	324	15	23:52:03	32	50	03:01:21:40
13Sep94	04:26:52	333	04:30:27	32	9	04:33:45	84	53	03:06:03:57
13Sep94	05:59:22	313	06:03:33	208	69	06:07:26	140	54	03:07:36:27
13Sep94	22:06:25	215	22:10:18	126	50	22:14:25	50	65	03:23:43:30
13Sep94	23:39:56	273	23:43:20	330	11	23:46:40	27	66	04:01:17:01

Denver CO

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	01:24:19	261	01:27:55	324	14	01:31:30	27	19	01:03:01:24	
11Sep94	07:39:54	322	07:44:06	52	43	07:47:59	126	23	01:09:16:59	
11Sep94	09:13:36	284	09:16:36	236	6	09:19:17	194	24	01:10:50:41	
11Sep94	23:46:15	212	23:50:08	136	44	23:54:20	49	34	02:01:23:20	
12Sep94	01:19:57	272	01:23:14	326	9	01:26:32	21	35	02:02:57:02	
12Sep94	06:03:02	343	06:06:01	31	7	06:09:01	78	38	02:07:40:07	
12Sep94	07:35:14	316	07:39:07	320	80	07:43:18	138	39	02:09:12:19	
12Sep94	23:41:23	223	23:45:16	305	85	23:49:27	43	50	03:01:18:28	
13Sep94	01:15:41	285	01:18:40	334	6	01:21:39	19	51	03:02:52:46	
13Sep94	05:57:52	338	06:01:09	32	10	06:04:26	88	54	03:07:34:57	
13Sep94	07:30:22	310	07:34:15	229	42	07:38:08	150	55	03:09:07:27	
13Sep94	22:04:48	168	22:07:48	121	6	22:10:36	77	65	03:23:41:53	
13Sep94	23:36:19	235	23:40:07	305	41	23:44:05	37	66	04:01:13:24	

Houston TX

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	07:43:11	332	07:47:22	56	34	07:51:16	130	23	01:09:20:16	
11Sep94	22:12:57	194	22:16:50	123	22	22:20:43	51	33	01:23:50:02	
11Sep94	23:46:39	266	23:49:38	314	8	23:52:55	7	34	02:01:23:44	
12Sep94	07:38:24	324	07:42:36	108	79	07:46:29	143	39	02:09:15:29	
12Sep94	22:08:04	207	22:11:57	117	48	22:15:51	43	49	02:23:45:09	
13Sep94	07:33:32	315	07:37:25	243	38	07:41:18	157	55	03:09:10:37	
13Sep94	22:02:42	220	22:06:53	320	65	22:10:50	34	65	03:23:39:47	

Huntsville AL

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	06:10:53	341	06:14:29	39	11	06:18:04	101	22	01:07:47:58	
11Sep94	07:43:41	304	07:47:17	241	20	07:51:10	167	23	01:09:20:46	
11Sep94	22:14:51	210	22:19:02	120	50	22:22:55	45	33	01:23:51:56	
11Sep94	23:49:08	277	23:52:08	324	6	23:55:07	10	34	02:01:26:13	
12Sep94	06:06:01	336	06:09:54	46	18	06:13:29	112	38	02:07:43:06	
12Sep94	07:39:07	295	07:42:24	241	11	07:45:59	181	39	02:09:16:12	
12Sep94	22:10:04	223	22:13:57	286	66	22:18:08	37	49	02:23:47:09	
13Sep94	06:01:02	329	06:04:55	45	32	06:08:49	125	54	03:07:38:07	
13Sep94	07:34:44	283	07:37:25	241	5	07:40:07	198	55	03:09:11:49	
13Sep94	20:33:47	163	20:36:29	121	5	20:39:28	75	64	03:22:10:52	
13Sep94	22:05:06	235	22:08:59	310	32	22:13:09	31	65	03:23:42:11	

Compiled by Will Marchant, KC6ROL
Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group
Send comments to kc6rol@amsat.org
/EX

SB SAREX @ AMSAT \$STS-64.006
STS-64 Western R/S Times 09/11

Below are the rise and set times for STS-64 for selected US cities over the next three days. This data was generated to help hams without orbit programs to participate in the SAREX activities. Please note that all times are in UTC.

Rise= time (HH:MM:SS) the Shuttle Orbiter appears at the horizon
Az= Azimuth (true) where the Orbiter will rise.
Maximum= time, azimuth (Az), and elevation (El) of the highest part of the pass
Set= time and azimuth when the Shuttle descends below the horizon
Orb= the number of this orbit
Rise MET= The Mission Elapsed Time at the rise. Format is DD:HH:MM:SS

Albuquerque NM

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	01:23:44	271	01:27:01	325	8	01:30:00	12	19	01:03:00:49	
11Sep94	07:40:54	337	07:44:29	40	16	07:48:22	110	23	01:09:17:59	
11Sep94	09:13:42	299	09:17:17	238	13	09:20:52	176	24	01:10:50:47	
11Sep94	23:44:57	217	23:49:08	85	79	23:53:02	41	34	02:01:22:02	

12Sep94	07:35:55	331	07:39:49	44	27	07:43:42	122	39	02:09:13:00
12Sep94	09:09:19	288	09:12:19	241	7	09:15:18	193	40	02:10:46:24
12Sep94	23:40:17	230	23:44:10	312	43	23:48:03	34	50	03:01:17:22
13Sep94	07:30:57	324	07:34:50	36	54	07:39:01	134	55	03:09:08:02
13Sep94	22:03:24	173	22:06:42	118	8	22:09:48	69	65	03:23:40:29
13Sep94	23:35:12	241	23:39:01	309	23	23:42:41	26	66	04:01:12:17

Honolulu HI

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	02:45:39	215	02:49:33	306	77	02:53:26	32	20	01:04:22:44	
11Sep94	12:14:48	339	12:18:59	62	27	12:22:34	130	26	01:13:51:53	
12Sep94	02:40:47	228	02:44:40	299	29	02:48:33	21	36	02:04:17:52	
12Sep94	12:09:55	329	12:14:06	81	68	12:18:00	144	42	02:13:47:00	
13Sep94	01:04:29	164	01:07:11	120	6	01:10:10	72	51	03:02:41:34	
13Sep94	02:36:24	244	02:39:59	310	14	02:43:34	11	52	03:04:13:29	
13Sep94	12:05:02	319	12:08:56	244	41	12:12:49	158	58	03:13:42:07	

Los Angeles CA

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	01:21:02	240	01:24:55	318	25	01:28:49	28	19	01:02:58:07	
11Sep94	09:12:00	322	09:16:11	83	72	09:20:05	139	24	01:10:49:05	
11Sep94	23:43:52	184	23:47:27	121	14	23:51:02	60	34	02:01:20:57	
12Sep94	01:16:40	253	01:20:15	320	14	01:23:50	21	35	02:02:53:45	
12Sep94	07:35:19	353	07:38:19	41	6	07:41:00	83	39	02:09:12:24	
12Sep94	09:07:14	315	09:11:07	247	45	09:15:18	152	40	02:10:44:19	
12Sep94	23:38:41	198	23:42:34	118	25	23:46:27	51	50	03:01:15:46	
13Sep94	01:12:05	265	01:15:22	320	9	01:18:39	14	51	03:02:49:10	
13Sep94	07:29:51	344	07:33:26	43	10	07:36:43	97	55	03:09:06:56	
13Sep94	09:02:21	307	09:06:14	236	22	09:10:07	164	56	03:10:39:26	
13Sep94	23:33:30	210	23:37:23	119	54	23:41:21	44	66	04:01:10:35	

Seattle WA

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	01:23:08	196	01:26:43	135	16	01:30:36	66	19	01:03:00:13	
11Sep94	02:55:38	250	02:59:31	327	34	03:03:42	48	20	01:04:32:43	
11Sep94	04:29:37	292	04:32:55	347	11	04:36:30	47	21	01:06:06:42	

11Sep94	06:03:19	313	06:06:37	7	10	06:10:12	67	22	01:07:40:24
11Sep94	07:36:07	312	07:40:18	35	30	07:44:12	107	23	01:09:13:12
11Sep94	09:09:13	296	09:13:06	222	19	09:16:42	160	24	01:10:46:18
12Sep94	01:18:09	207	01:22:03	132	25	01:25:56	61	35	02:02:55:14
12Sep94	02:50:57	259	02:54:51	332	24	02:58:44	46	36	02:04:28:02
12Sep94	04:24:57	297	04:28:14	350	10	04:31:50	49	37	02:06:02:02
12Sep94	05:58:39	315	06:02:14	17	11	06:05:31	72	38	02:07:35:44
12Sep94	07:31:27	311	07:35:20	21	44	07:39:31	116	39	02:09:08:32
12Sep94	09:04:33	290	09:08:08	229	12	09:11:25	172	40	02:10:41:38
13Sep94	01:12:59	218	01:17:10	126	42	01:21:04	57	51	03:02:50:04
13Sep94	02:46:05	266	02:49:58	334	19	02:53:52	45	52	03:04:23:10
13Sep94	04:20:23	303	04:23:40	358	9	04:26:57	51	53	03:05:57:28
13Sep94	05:53:47	316	05:57:22	18	13	06:00:57	80	54	03:07:30:52
13Sep94	07:26:35	308	07:30:28	11	72	07:34:39	125	55	03:09:03:40
13Sep94	08:59:58	282	09:02:58	234	8	09:05:57	185	56	03:10:37:03
13Sep94	23:37:07	164	23:39:48	121	5	23:42:20	83	66	04:01:14:12

Compiled by Will Marchant, KC6ROL

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/EX

SB SAREX @ AMSAT \$STS-64.007

STS-65 World R/S Times 07/18

Below are the rise and set times for STS-64 for selected worldwide cities over the next three days. This data was generated to help hams without orbit programs to participate in the SAREX activities. Please note that all times are in UTC.

Rise= time (HH:MM:SS) the Shuttle Orbiter appears at the horizon

Az= Azimuth (true) where the Orbiter will rise.

Maximum= time, azimuth (Az), and elevation (El) of the highest part of the pass

Set= time and azimuth when the Shuttle descends below the horizon

Orb= the number of this orbit

Rise MET= The Mission Elapsed Time at the rise. Format is DD:HH:MM:SS

London UK

Satellite STS-64

Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise MET
11Sep94	00:08:22	297	00:12:34	210	42	00:16:27	136	18	01:01:45:27
11Sep94	17:51:24	217	17:55:18	149	30	17:59:29	65	30	01:19:28:29
11Sep94	19:24:12	260	19:28:24	348	35	19:32:17	59	31	01:21:01:17
11Sep94	20:57:36	289	21:01:29	357	20	21:05:23	71	32	01:22:34:41

11Sep94	22:30:42	300	22:34:53	22	37	22:38:47	101	33	02:00:07:47
12Sep94	00:03:48	294	00:07:41	220	27	00:11:35	146	34	02:01:40:53
12Sep94	17:46:32	226	17:50:25	156	46	17:54:37	63	46	02:19:23:37
12Sep94	19:19:38	268	19:23:31	346	28	19:27:25	60	47	02:20:56:43
12Sep94	20:53:02	294	20:56:55	9	20	21:00:48	76	48	02:22:30:07
12Sep94	22:25:50	301	22:30:01	22	50	22:34:12	109	49	03:00:02:55
12Sep94	23:58:56	291	00:02:49	219	18	00:06:24	156	50	03:01:36:01
13Sep94	16:09:58	181	16:13:15	127	8	16:16:14	79	61	03:17:47:03
13Sep94	17:41:34	235	17:45:27	165	74	17:49:38	61	62	03:19:18:39
13Sep94	19:14:40	274	19:18:33	348	24	19:22:26	61	63	03:20:51:45
13Sep94	20:48:04	297	20:51:57	11	22	20:55:50	80	64	03:22:25:09
13Sep94	22:20:52	300	22:25:03	35	71	22:29:05	116	65	03:23:57:57
13Sep94	23:54:01	287	23:57:24	231	13	00:00:00	176	66	04:01:31:06

Paris France

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	00:08:58	303	00:13:09	227	60	00:17:21	134	18	01:01:46:03	
11Sep94	16:20:06	170	16:23:05	123	6	16:25:47	82	29	01:17:57:11	
11Sep94	17:51:24	229	17:55:18	150	72	17:59:29	56	30	01:19:28:29	
11Sep94	19:24:30	273	19:28:24	341	18	19:32:17	50	31	01:21:01:35	
11Sep94	20:58:30	303	21:02:05	5	12	21:05:41	64	32	01:22:35:35	
11Sep94	22:31:36	310	22:35:29	22	24	22:39:22	96	33	02:00:08:41	
12Sep94	00:04:24	300	00:08:17	232	35	00:12:28	144	34	02:01:41:29	
12Sep94	16:14:38	183	16:17:55	130	10	16:21:13	75	45	02:17:51:43	
12Sep94	17:46:32	239	17:50:25	317	69	17:54:37	54	46	02:19:23:37	
12Sep94	19:19:56	280	19:23:49	350	15	19:27:25	51	47	02:20:57:01	
12Sep94	20:53:38	305	20:57:13	5	12	21:00:48	67	48	02:22:30:43	
12Sep94	22:26:44	309	22:30:37	22	31	22:34:48	105	49	03:00:03:49	
12Sep94	23:59:32	296	00:03:25	227	22	00:07:18	154	50	03:01:36:37	
13Sep94	16:09:22	194	16:12:57	129	15	16:16:32	68	61	03:17:46:27	
13Sep94	17:41:34	248	17:45:27	327	43	17:49:38	52	62	03:19:18:39	
13Sep94	19:15:16	288	19:18:51	351	13	19:22:26	52	63	03:20:52:21	
13Sep94	20:48:39	307	20:52:15	6	13	20:56:08	74	64	03:22:25:44	
13Sep94	22:21:45	308	22:25:39	25	44	22:29:39	113	65	03:23:58:50	
13Sep94	23:54:38	292	00:00:00	186	9	00:00:00	186	66	04:01:31:43	

Sydney Australia

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	02:27:07	197	02:30:42	137	11	02:34:00	81	19	01:04:04:12	
11Sep94	03:59:37	235	04:03:30	303	19	04:07:24	13	20	01:05:36:42	

11Sep94	18:30:46	326	18:34:40	27	69	18:38:51	139	30	01:20:07:51
12Sep94	02:22:14	203	02:26:08	130	18	02:29:43	67	35	02:03:59:19
12Sep94	03:55:20	246	03:58:38	301	10	04:01:55	357	36	02:05:32:25
12Sep94	18:26:00	313	18:29:53	229	49	18:34:04	146	46	02:20:03:05
13Sep94	02:17:16	210	02:21:09	131	32	02:25:02	54	51	03:03:54:21
13Sep94	03:50:58	258	03:53:39	300	5	03:56:21	341	52	03:05:28:03
13Sep94	16:49:25	12	16:52:25	61	7	16:55:24	108	61	03:18:26:30
13Sep94	18:21:01	300	18:24:55	226	25	18:28:48	153	62	03:19:58:06

Tokyo Japan

Satellite STS-64
Element Set 13

Date	Rise	Az	Maximum	Az	El	Set	Az	Orb	Rise	MET
11Sep94	07:18:22	204	07:22:15	132	33	07:26:26	49	23	01:08:55:27	
11Sep94	08:52:04	269	08:55:21	322	8	08:58:39	15	24	01:10:29:09	
11Sep94	15:08:56	334	15:12:49	42	18	15:16:43	112	28	01:16:46:01	
11Sep94	16:42:02	297	16:45:37	235	12	16:48:55	179	29	01:18:19:07	
12Sep94	07:13:35	217	07:17:29	142	76	07:21:40	42	39	02:08:50:40	
12Sep94	08:47:53	282	08:50:35	323	5	08:53:34	8	40	02:10:24:58	
12Sep94	15:03:58	328	15:08:09	51	31	15:12:02	124	44	02:16:41:03	
12Sep94	16:37:39	285	16:40:39	238	6	16:43:20	196	45	02:18:14:44	
13Sep94	07:08:37	229	07:12:30	306	47	07:16:41	35	55	03:08:45:42	
13Sep94	14:58:59	322	15:03:10	68	64	15:07:04	136	60	03:16:36:04	

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Date: (null)
From: (null)

End of Info-Hams Digest V94 #1013
